

125. Given the significant costs that would be imposed on Little LEO systems, we decline, at this time, to require Little LEO systems to use GPS or Doppler. We also note that neither the ITU nor the European Union mandates a position determination requirement for global satellite systems. However, we will work closely with other countries when necessary to ensure that United States Little LEO licensees operate appropriately, and we retain jurisdiction over Little LEO licensees to ensure that they meet both their international obligations and any national requirements imposed by other licensing administrations. We delegate authority to the International Bureau to take all necessary steps to enforce these requirements and, if an effective response to unauthorized transmissions is found for the Little LEO service, to establish relevant requirements and apply them retroactively to Little LEO systems.

126. The Affiliated American Railroads comment that the comments of the second round applicants opposing equipping their systems with position determination capability are at odds with their position taken at IWG-2A meetings where they supported such a requirement to avoid interference with terrestrial fixed service stations.<sup>187</sup> The Affiliated American Railroads are concerned that, without position determination capability, Little LEO systems' uplink transmissions will interfere with railroad mobile relay stations, which have similar characteristics to terrestrial fixed service stations.<sup>188</sup> No technical analysis supporting this concern was submitted by the Affiliated American Railroads. Without evidence that such harmful interference is likely to result, we will not require Little LEO licensees to equip their systems with position determination capability.

E. Exclusive Arrangements with Foreign Countries

127. We adopt our proposal prohibiting Little LEO licensees from entering into exclusive arrangements with other countries concerning communications to and from the United States.<sup>189</sup> The majority of commenters who addressed this issue support our proposal.<sup>190</sup> An exclusive agreement may foreclose other Little LEO licensees from serving a foreign market, providing global service, and competing effectively with other systems that serve the United States. This would undermine our objective of promoting competition in the United States satellite service market.

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<sup>187</sup> Reply Comments of the Affiliated American Railroads at 4-5.

<sup>188</sup> Id.

<sup>189</sup> See Notice ¶ 102. Such limitations were adopted in the Big LEO service. See Amendment of the Commission's Rules to Establish Rules and Policies Pertaining to a Mobile Satellite Service in the 1610-1626.5/2483.5-2500 MHz Frequency Band, Memorandum Opinion and Order, FCC 96-54, CC Docket No. 92-166, ¶¶ 54-55 (released February 15, 1996); 47 C.F.R. § 25.143(h) (prohibiting Big LEO satellite systems from entering into exclusive arrangements to serve particular countries).

<sup>190</sup> Comments of Final Analysis at 50; Comments of GE-Starsys at 29; Comments of Orbcomm at 58.

128. In opposition, CTA argues that Little LEO licensees should not be penalized for the limited availability of spectrum by foregoing commercial opportunities in countries where spectrum may be extremely limited.<sup>191</sup> Our intent is not to penalize licensees and we do not believe that our policy will have such a result. We recognize that spectrum coordination and availability as well as market size and commercial opportunities in a particular country may limit the number of systems that can serve that country. We will not penalize the sole service provider in a particular market if spectrum and market limitations prohibit another system from entering and serving the particular market. We do not expect a United States licensed system to forego opportunities to serve markets based on the possibility that it may be the only service provider in the market.

#### F. Amended Applications

129. In the Notice, we proposed to allow applicants to file amended applications on December 16, 1996.<sup>192</sup> Several of the applicants requested that we defer the filing of amended applications, and we deferred such filings until a date up to 30 days after the release of this Report and Order.<sup>193</sup> In order to expedite the processing of amended applications and second round licenses, we will require that amended applications be filed within 15 days after the release of this Report and Order. We find good cause to make this rule effective within 15 days after the release of this Report and Order. We encourage second round applicants to file their amended applications as soon as possible but no later than 15 days after release of this Report and Order to expedite the processing of second round licenses. Second round applicants must apply for the system or spectrum they have agreed to operate in pursuant to the Joint Proposal and the spectrum sharing plan that we adopt in this Report and Order. After receipt of an applicant's amended application, the Commission will determine if such applicant is technically and financially qualified for a license. If an applicant is so qualified, a license will be granted. If an applicant fails to apply for the system or spectrum it has agreed to operate in pursuant to the Joint Proposal or is not qualified for a second round license, then the spectrum assigned to such applicant under our spectrum sharing plan will be deemed available for reassignment by the Commission at a future date.

130. As stated in the Notice, all amended applications must conform to Part 25 of our Rules and will be accepted unconditionally if made to conform the application to the rules and

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<sup>191</sup> Comments of CTA at 34.

<sup>192</sup> See Notice ¶ 106.

<sup>193</sup> See In the Matter of Amendment of Part 25 of the Commission's Rules to Establish Rules and Policies Pertaining to the Second Processing Round of the Non-Voice, Non-Geostationary Mobile Satellite Service, Order, IB Docket 96-220, DA 97-120, ¶ 4 (released January 17, 1997).

policies adopted in the Report and Order.<sup>194</sup> Final Analysis contends that amendments that do not have any material impact on other systems should not be considered "major."<sup>195</sup> Section 25.116 of our Rules provides that if an amendment is deemed to be "major" and is filed after the applicable "cut-off" date, the entire application will be considered a newly filed as of the date of the amendment and subject to the public notice requirements of Section 25.151 of our Rules.<sup>196</sup> Since the cut-off date for filing applications in the second processing round has passed, amended applications that constitute "major" amendments will not be considered in this processing round. Section 25.116 contains several exceptions, including instances where the amendment resolves frequency conflicts with other pending applications, but does not create new or increased frequency conflicts.<sup>197</sup>

131. Accordingly, only amendments that are necessary to bring an application into conformance with any rules and policies that are adopted in this Report and Order will be accepted unconditionally.<sup>198</sup> All other amendments will be treated under our existing Rules. Thus, a change in the feeder or service link spectrum that a system will operate in to meet the requirements imposed by our five-system spectrum sharing plan or a change in system configuration necessary to comply with the 125 minute or less frequency change requirement for time-sharing the 400.15-401 MHz band with DoD would be permitted without affecting a particular application's status in this processing group. However, an amendment that substantially alters an applicant's beneficial ownership or control<sup>199</sup> or a change that is not necessary to bring the application into conformance with our the rules adopted in this Report and Order and which would increase frequency conflicts, such as a change from a CDMA to a FDMA/TDMA transmission technique, would render the application a newly filed application to be considered in a future processing group.

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<sup>194</sup> Notice ¶ 103.

<sup>195</sup> Comments of Final Analysis at 46.

<sup>196</sup> 47 C.F.R. § 25.116(c).

<sup>197</sup> Id.

<sup>198</sup> See Big LEO Order ¶ 59.

<sup>199</sup> There is a public interest exemption from this requirement. See 47 C.F.R. § 25.116(c); See also Air Signal International, Inc., 81 FCC 2d 472 (1980) (waiving Section 25.116 to allow acquisition of interests in applications as part of a larger corporate transaction involving acquisition of substantial and ongoing lines of business apart from the applications); Constellation Communications, FCC 96-279 (released June 27, 1996) (where an anti-trafficking rules provided safeguard, waiving Section 25.116 for ownership changes resulting in part from larger corporate transactions and in part to bolster finances); Starsys Global Positioning, Inc., 11 FCC Rcd 1237 (Int'l Bureau 1995) (waiving Section 25.116 where ownership changes removed potential uncertainty as to compliance with foreign ownership limits and financial qualifications requirements), petition for recon. pending.

132. An applicant's amended application must indicate which system or spectrum the applicant is applying for and the technical parameters of its system including, but not limited to, the number of satellites in its system, the specific spectrum in which it will operate feeder and service links as well as the channel size and number of the same, and the operational protocols and descriptions of its proposed time-sharing techniques, including information about the methods they would use to avoid unacceptable interference to United States government systems, existing Little LEO licensees and other authorized systems operating in the same spectrum. We ask also that applicants describe in detail the strategies they propose to shift their operations in the 137-138 MHz frequency band from the NOAA bands to the NOAA channels during the years 2000 to 2012. If, upon review, the Commission believes that it is feasible for the parties to coordinate successfully and a license is granted, we will expect the parties to coordinate their systems in good faith. The foregoing information provided by the applicants in their amended applications will assist us in identifying potential coordination conflicts with other applicants and authorized systems.

G. Expectations of Future Spectrum

133. Final Analysis requests that the Commission permit applicants to maintain their applications on file for their full constellations even if certain aspects of their system proposals cannot be fully implemented under a partial or interim license grant.<sup>200</sup> Available spectrum for Little LEO service is scarce. We had significant difficulty obtaining spectrum for Little LEO service at WRC-95 and only uplink spectrum was allocated for the service. We have no assurances that we will obtain additional spectrum for Little LEO service at WRC-97. Except with respect to a System 2 licensee, we emphasize that a second round Little LEO licensee must be prepared to operate its entire system solely using the spectrum being authorized in this Report and Order, without regard to additional WRC-95 and WRC-97 spectrum, if any, that it may be assigned in the future.

134. We are concerned that if a second round Little LEO licensee builds and operates its system with the expectation of obtaining additional spectrum in the future, and it is unable to obtain such spectrum, then it may not continue to be financially viable and offer Little LEO services to the public. This would undermine our objectives of promoting competition in the Little LEO service markets and fostering the rapid delivery of new and innovative service to the public. Therefore, except as noted with respect to System 2, we expect second round Little LEO licensees to develop business plans that will accommodate the operation of their system in the spectrum they are authorized to use in the first and second processing rounds without any expectation of obtaining additional spectrum. As a result, we will not keep second round Little LEO system applications on file after we grant licenses in this proceeding.

H. Existing Rules

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<sup>200</sup> Id.

135. Second round Little LEO systems are subject to our existing rules and policies governing Little LEO system licensing and operation. We will not require Little LEO licensees to provide service on a common carrier basis.<sup>201</sup> Further, we will issue a ten-year blanket operating license that authorizes (1) the Little LEO system space segment and commences when the first LEO satellite in a new licensee's Little LEO system, or the first of the additional LEO satellites covered by an existing Little LEO licensee's modification request, is launched, (2) the replacement of such satellites as they are retired, (3) a filing window for next generation system proposals, and (4) system implementation milestones. A second round Little LEO licensee will be required to obtain separate Commission authorizations for the user terminals and gateways to be utilized in its Little LEO system.

#### IV. CONCLUSION

136. In this Report and Order, we adopt rules and policies that will allow the licensing and operation of competitive NVNG MSS systems operating in the public interest. Based on the considerations discussed above, we believe the rules and policies set forth in this Report and Order will best serve the public interest by making efficient use of finite spectrum and orbital resources and promoting our goals of competition and rapid service development in Little LEO service markets.

#### V. ORDERING CLAUSES

137. Accordingly, IT IS ORDERED pursuant to Sections 1, 4, 303(r), and 309(j) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 154, 303(r), and 309(j), that Part 25 of the Commission's Rules, 47 C.F.R. Part 25, and the Commission's policies are amended as specified in this Report and Order.

138. IT IS FURTHER ORDERED that second round applicants shall file amended applications within 15 days after the release of this Report and Order. We find good cause to make this rule effective within 15 days after the release of this Report and Order.<sup>202</sup> This rule will enable the five second round applicants to expedite the amendment of their second round applications which have been pending for approximately three years. This will enable the Commission to expedite the processing of second round applications in order to issue licenses to qualified applicants. Continued delay in the processing of second round applications will increase the headstarts already given to existing first round licensees and other providers of competitive services. Further delay in issuing second processing round licenses will undermine the public interest by delaying the entry of new competitors in the markets for

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<sup>201</sup> Little LEO Order ¶ 24.

<sup>202</sup> See 5 U.S.C. § 553(d)(3). See also Omnipoint Corporation v. FCC, 78 F.3d 620 (D.C. Cir. 1996).

Little LEO services. Moreover, we find that good cause exists to waive additional notice and comment upon this rule because it is unnecessary and contrary to the public interest.<sup>203</sup> This rule has already been subject to notice and comment in this rulemaking proceeding and the second round applicants that are directly affected by this rule are urging the Commission to take prompt action in this Report and Order that will expedite the issuance of second round licenses.<sup>204</sup> It would be contrary to the public interest for the Commission to delay further the processing of second round applications now that the second round applicants have mutually agreed upon a spectrum sharing plan and are urging the Commission to expedite the issuance of second round licenses.

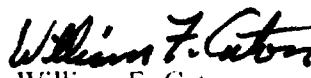
139. The report required to be submitted to Congress pursuant to the Contract with America Advancement Act of 1996, 5 U.S.C. § 801 et seq., is set forth in Appendix C attached hereto.

140. The analysis required pursuant to the Regulatory Flexibility Act, 5 U.S.C. § 604, is set forth in Appendix D attached hereto.

141. The Paperwork Reduction Act does not apply to the rules adopted herein because such rules apply to less than 10 persons.<sup>205</sup>

142. Except for the rule requiring the filing of amended applications by second round applicants within 15 days after the release of this Report and Order, IT IS FURTHER ORDERED that amendments to Part 25 of the Commission's Rules, 47 C.F.R. Part 25, and the Commission's policies, as specified in this Report and Order, WILL BECOME EFFECTIVE no earlier than permitted under the Contract with America Advancement Act of 1996, 5 U.S.C. § 801 et seq.

FEDERAL COMMUNICATIONS COMMISSION

  
William F. Caton  
Acting Secretary

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<sup>203</sup> See 5 U.S.C. § 808(2).

<sup>204</sup> See Joint Proposal at 1, 9 and 11.

<sup>205</sup> See 44 U.S.C. § 3502(3)(a)(i).

**APPENDIX A**  
**List of Parties Filing Comments**

**Comments**

- 1 American Petroleum Institute
- 2 Association of American Railroads
- 3 CTA Commercial Systems, Inc.
- 4 Clean Caribbean Cooperative (LETTER)
- 5 Clean Casco Bay, Inc.
- 6 Clean Bay Incorporated
- 7 Clean Sound Cooperative (LETTER)
- 8 Clean Channel Association (LETTER)
- 9 Cook Inlet Spill Prevention
- 10 E-Sat, Inc.
- 11 Falcon Cable TV
- 12 Final Analysis Communication Services, Inc.
- 13 GE-STARSYS Global Positioning, Inc. & GE American Communications, Inc.
- 14 Gardner Environmental Services (LETTER)
- 15 Industrial Telecommunications Association, Inc.
- 16 Iridium LLC
- 17 L/Q Licensee, Inc.
- 18 Leo One USA Corporation (+ Erratum)
- 19 Lockheed Martin Corporation
- 20 Lowry Computer Products
- 21 Ministry of Posts Japan
- 22 Neverfail Bottle Water
- 23 Orbital Communications Corporation
- 24 Satellite, Inc.
- 25 Satellite Industry Association
- 26 Texaco (Letter)
- 27 Texas General Land Office
- 28 U.S. Oil & Refining, Inc.
- 29 Volunteers in Technical Assistance

**Reply Comments**

- 1     Affiliated American Railroads
- 2     American Petroleum Institute
- 3     Aurora Group (LETTER)
- 4     CTA Commercial Systems, Inc.
- 5     E-SAT, Inc.
- 6     Final Analysis Communication Services, Inc.
- 7     GE-STARSYS Global Positioning, Inc. & GE American Communications, Inc.
- 8     Leo One USA Corporation
- 9     Motorola
- 10    Orbital Communications Corporation (REPLY AND LETTER)



## APPENDIX B

**Proposed Rule Amendments to 47 C.F.R. Part 25 of the Commission's Rules**

Part 25 of the Commission's Rules and Regulations (Chapter I of Title 47 of the Code of Federal Regulations) is proposed to be amended as follows:

1. The authority citation for Part 25 continues to read as follows:

**Authority:** Secs. 25.101 to 25.601 issued under Sec. 4, 48 Stat. 1066, as amended; 47 U.S.C. 154. Interpret or apply secs. 101-104, 76 Stat. 419-427; 47 U.S.C. 701-744; 47 U.S.C. 554.

**PART 25-SATELLITE COMMUNICATIONS**

2. The Table of Contents for Part 25 is amended by adding Sections 25.259 and 25.260 to Subpart C:

\* \* \* \* \*

**Subpart C -- Technical Standards**

\* \* \* \* \*

Sec.

- |        |  |
|--------|--|
| 25.259 | Time Sharing Between NOAA Meteorological Satellite Systems and Non-Voice, Non-Geostationary Satellite Systems in the 137-138 MHz band    |
| 25.260 | Time Sharing Between DoD Meteorological Satellite Systems and Non-Voice, Non-Geostationary Satellite Systems in the 400.15-401 MHz band. |

\* \* \* \* \*

3. Subsections 25.142 (d) and 25.142 (e) are added to Section 25.142 of Subpart B to read as follows:

(d) *Prohibition of certain agreements.* No license shall be granted to any applicant for a non-voice, non-geostationary mobile-satellite service system if that applicant, or any companies controlling or controlled by the applicant, shall acquire or enjoy any right, for the purpose of handling traffic to or from the United States, its territories or possessions, to construct or operate space segment or earth stations in the non-voice, non-geosynchronous mobile-satellite service, or to interchange traffic, which is denied to any other United States company by reason of any concession, contract, understanding, or working arrangement to

which the licensee or any persons or companies controlling or controlled by the licensee are parties.

(e) *Spectrum Priority*. (i) The non-voice, non-geosynchronous mobile-satellite service system that is authorized in the second application processing round to operate in the 148-148.25 MHz, 148.75-148.855 MHz, 148.905-149.81 MHz and 150-150.05 MHz uplink frequency bands and the 400.505-400.5517 MHz, 400.5983-400.645 MHz, 137.025-137.175 MHz, 137.333-137.4125 MHz, 137.475-137.525 MHz, 137.595-137.645 MHz, 137.753-137.787 MHz and 137.825-138 MHz downlink frequency bands (the "System 2 licensee") will have a first priority to apply for and use a limited amount of downlink spectrum duly allocated worldwide and domestically to the non-voice, non-geosynchronous mobile-satellite service by the ITU, at WRC-97 or a subsequent World Radiocommunication Conference, and by the Commission, respectively (the "Future Spectrum"). The System 2 licensee will be eligible to apply for and use the first 210 kHz of Future Spectrum plus spectrum sufficient to account for Doppler frequency shift in the Future Spectrum (the "Supplemental Spectrum") to implement its non-voice, non-geosynchronous mobile-satellite service system. The System 2 licensee's application for and use of the Supplemental Spectrum is subject to the Commission's Rules and policies, such reasonable operating conditions as may be imposed by the Commission, and international spectrum coordination requirements. For so long as the System 2 licensee is permitted by the Government of France to operate in the 400.5517-400.5983 MHz band coordinated with the French system S80-1, the Supplemental Spectrum shall be reduced to an amount equivalent to 150 kHz of Future Spectrum plus spectrum sufficient to account for Doppler frequency shift in the Future Spectrum.

(ii) The System 2 licensee's priority to apply for and use the Supplemental Spectrum is conditioned on the System 2 licensee's compliance with the terms and conditions of its second processing round authorization, including, but not limited to, its system construction, launch and operation milestones, and any modifications thereto, and the Commission's Rules. The System 2 licensee's priority to apply for and use the Supplemental Spectrum shall automatically terminate upon the occurrence of any of the following events: (a) the System 2 licensee being permitted to operate in the Supplemental Spectrum; (b) the expiration or revocation of the System 2 licensee's second processing round authorization; (c) the discontinuance of use of the spectrum assigned to the System 2 licensee under its second processing round authorization; or (d) the surrender of the System 2 licensee's second processing round authorization to the Commission.

\* \* \* \* \*

4. The following definition is added to Section 25.201 of Subpart C to read as follows:

*Protection Areas*. The geographic regions on the surface of the Earth where United States Department of Defense ("DoD") meteorological satellite systems or National Oceanic and

Atmospheric Administration ("NOAA") meteorological satellite systems, or both such systems, are receiving signals from low earth orbiting satellites.

\* \* \* \* \*

5. Sections 25.259 and 25.260 are added to Subpart C to read as follows:

**§ 25.259 Time Sharing Between NOAA Meteorological Satellite Systems and Non-Voice, Non-Geostationary Satellite Systems in the 137-138 MHz band**

(a) A non-voice, non-geostationary mobile-satellite service system licensee ("NVNG licensee") time-sharing spectrum in the 137-138 MHz frequency band shall not transmit signals into the "protection areas" of National Oceanic and Atmospheric Administration ("NOAA") satellite systems. When calculating the protection areas for a NOAA satellite in the 137.333-137.367 MHz, 137.485-137.515 MHz, 137.605-137.635 MHz and 137.753-137.787 MHz bands, a NVNG licensee shall use an earth station elevation angle of five degrees towards the NOAA satellite and will cease its transmissions prior to the NVNG licensee's service area, based on an elevation angle of zero degrees towards the NVNG licensee's satellite, overlapping the NOAA protection area. When calculating the protection areas for a NOAA satellite in the 137.025-137.175 MHz and 137.825-138 MHz bands, a NVNG licensee shall use an earth station elevation angle of zero degrees, or less if reasonably necessary, towards the NOAA satellite and will cease its transmissions prior to the NVNG licensee's service area, based on an elevation angle of zero degrees towards the NVNG licensee's satellite, overlapping the NOAA protection area. A NVNG licensee is responsible for obtaining the necessary ephemeris data. This information shall be updated system-wide on at least a weekly basis. A NVNG licensee shall use an orbital propagator algorithm with an accuracy equal to or greater than the NORAD propagator used by NOAA.

(b) A NVNG licensee time sharing spectrum in the 137-138 MHz band shall establish a 24-hour per day contact person and telephone number so that claims of harmful interference into NOAA earth station users and other operational issues can be reported and resolved expeditiously. This contact information shall be made available to NOAA or its designee. If the National Telecommunications and Information Administration ("NTIA") notifies the Commission that NOAA is receiving unacceptable interference from a NVNG licensee, the Commission will require such NVNG licensee to terminate its interfering operations immediately unless it demonstrates to the Commission's reasonable satisfaction, and that of NTIA, that it is not responsible for causing harmful interference into the worldwide NOAA system. A NVNG licensee assumes the risk of any liability or damage that it and its directors, officers, employees, affiliates, agents and subcontractors may incur or suffer in connection with an interruption of its non-voice, non-geostationary mobile-satellite service, in whole or in part, arising from or relating to its compliance or noncompliance with the requirements of this subsection (b). The Commission will not hesitate to impose sanctions on

a NVNG licensee time-sharing spectrum in the 137-138 MHz band with NOAA, including monetary forfeitures and license revocations, when appropriate.

(c) Each satellite in a NVNG licensee's system time-sharing spectrum with NOAA in the 137-138 MHz band shall automatically turn off and cease satellite transmissions if, after 72 consecutive hours, no reset signal is received from the NVNG licensee's gateway earth station and verified by the satellite. All satellites in such NVNG licensee's system shall be capable of instantaneous shutdown on any sub-band upon command from such NVNG licensee's gateway earth station.

**§ 25.260 Time Sharing Between DoD Meteorological Satellite Systems and Non-Voice, Non-Geostationary Satellite Systems in the 400.15-401 MHz band.**

(a) A non-voice, non-geostationary mobile-satellite service system licensee ("NVNG licensee") time-sharing spectrum in the 400.15-401.0 MHz band shall not transmit signals into the "protection areas" of Department of Defense ("DoD"). When calculating the protection areas for a DoD satellite in the 400.15-401 MHz band, a NVNG licensee shall use an earth station elevation angle of five degrees towards the DoD satellite and will shut off its transmissions prior to the NVNG licensee's service area, based on an elevation angle of zero degrees towards the NVNG licensee's satellite, overlapping the DoD protection area. A NVNG licensee is responsible for obtaining the necessary ephemeris data. This information shall be updated system-wide at least once per week. A NVNG licensee shall use an orbital propagator algorithm with an accuracy equal to or greater than the NORAD propagator used by DoD.

(b) A NVNG licensee time sharing spectrum in the 400.15-401 MHz band shall establish a 24-hour per day contact person and telephone number so that claims of harmful interference into DoD earth station users and other operational issues can be reported and resolved expeditiously. This contact information shall be made available to DoD or its designee. If the National Telecommunications and Information Administration ("NTIA") notifies the Commission that DoD is receiving unacceptable interference from a NVNG licensee, the Commission will require such NVNG licensee to terminate its interfering operations immediately unless it demonstrates to the Commission's reasonable satisfaction, and that of NTIA, that it is not responsible for causing harmful interference into the worldwide DoD system. A NVNG licensee assumes the risk of any liability or damage that it and its directors, officers, employees, affiliates, agents and subcontractors may incur or suffer in connection with an interruption of its non-voice, non-geostationary mobile-satellite service, in whole or in part, arising from or relating to its compliance or noncompliance with the requirements of this subsection (b). The Commission will not hesitate to impose sanctions on a NVNG licensee time-sharing spectrum in the 400.15-401 MHz band with DoD, including monetary forfeitures and license revocations, when appropriate.

(c) Each satellite in a NVNG licensee's system time-sharing spectrum with DoD in the 400.15-401 MHz band shall automatically turn off and cease satellite transmissions if, after 72 consecutive hours, no reset signal is received from the NVNG licensee's gateway earth station and verified by the satellite. All satellites in such NVNG licensee's system shall be capable of instantaneous shutdown on any sub-band upon command from such NVNG licensee's gateway earth station.

(d) Initially, a NVNG licensee time-sharing spectrum with DoD in the 400.15-401 MHz band shall be able to change the frequency on which its system satellites are operating within 125 minutes of receiving notification from a DoD required frequency change in the 400.15-401 MHz band. Thereafter, when a NVNG licensee constructs additional gateway earth stations located outside of North and South America, it shall use its best efforts to decrease to 90 minutes the time required to implement a DoD required frequency change. A NVNG licensee promptly shall notify the Commission and NTIA of any decrease in the time it requires to implement a DoD required frequency change.

(e) Once a NVNG licensee time-sharing spectrum with DoD in the 400.15-401 MHz band demonstrates to DoD that it is capable of implementing a DoD required frequency change within the time required under subsection (d) above, thereafter, such NVNG licensee shall demonstrate its capability to implement a DoD required frequency change only once per year at the instruction of DoD. Such demonstrations shall occur during off-peak hours, as determined by the NVNG licensee, unless otherwise agreed by the NVNG licensee and DoD. Such NVNG licensee will coordinate with DoD in establishing a plan for such a demonstration. In the event that a NVNG licensee fails to demonstrate to DoD that it is capable of implementing a DoD required frequency change in accordance with a demonstration plan established by DoD and the NVNG licensee, upon the Commission's receipt of a written notification from NTIA describing such failure, the Commission shall impose additional conditions or requirements on the NVNG licensee's authorization as may be necessary to protect DoD operations in the 400.15-401 MHz downlink band until the Commission is notified by NTIA that the NVNG licensee has successfully demonstrated its ability to implement a DoD required frequency change. Such additional conditions or requirements may include, but are not limited to, requiring such NVNG licensee immediately to terminate its operations interfering with the DoD system.

**APPENDIX C  
CONTRACT WITH AMERICA ADVANCEMENT ACT  
OIRA MAJOR/NON-MAJOR  
DETERMINATION**

**Title of Item:** Amendment of Part 25 of the Commission's Rules to Establish Rules and Policies Pertaining to the Second Processing Round of the Non-Voice, Non-Geostationary Mobile Satellite Service

**Planned Action:** Report and Order

**Release Date:** October 15, 1997

**Rulemaking Category:** ☒ Major ☐ Non-Major ☐ Telecommunications Act of 1996

**Contact:** Daniel Connors/International Bureau      **Phone:** (202) 418-0755

**Abstract:** The Report and Order adopts a spectrum sharing plan and service rules and policies for licensing second round applicants to offer low earth orbiting non-voice, non-geosynchronous ("NVNG") mobile-satellite services ("MSS"). The Report and Order adopts a spectrum sharing plan that accommodates all second processing round applicants in the available spectrum. Three new entrants can be licensed to launch and operate new NVNG MSS systems and two existing NVNG MSS licensees can be licensed to expand the service capability of their systems. In the uplink and downlink spectrum, the licensees will be required to time-share the spectrum with existing commercial and U.S. government users. The Report and Order adopts specific rules for time-sharing the available spectrum with authorized United States government and commercial users. The Report and Order also adopts rules for qualification for a second processing round authorization and for eligibility to use future MSS spectrum allocations.

Because the spectrum sharing plan and technical rules and policies adopted by the Report and Order are likely to result in an annual effect on the economy of \$100,000,000 or more, the Commission believes that this is a major rule under the Contract with America Advancement Act of 1996, Pub. L. No. 10-1221.

The Commission is not required to prepare a cost benefit analysis and is not subject to the Unfunded Mandates Reform Act of 1995, Pub. L. 104-4.

Paperwork Reduction Act implications? ☐ Yes☒ No

**Proposed Effective Date:** The effective date of the spectrum sharing plan and rules adopted in the Report and Order is the later of 60 days after the submission of a report to Congress and the General Accounting Office about the Report and Order or the date of publication in the Federal Register.

**APPENDIX D**  
**Final Regulatory Flexibility Analysis**

As required by the Regulatory Flexibility Act, ("RFA"),<sup>206</sup> an Initial Regulatory Flexibility Analysis ("IRFA") was incorporated in the Notice.<sup>207</sup> The Commission sought written public comment on the proposals in the Notice, including comment on the IRFA. This Final Regulatory Flexibility Analysis ("FRFA"), concerning the Report and Order, conforms to the RFA.<sup>208</sup>

**I. Need for and Objectives of the Report and Order:**

In this decision, the Commission, adopts a spectrum licensing plan and service rules and policies for second processing round applicants for non-voice, non-geostationary ("NVNG") mobile-satellite service ("MSS") systems that will operate in frequency bands below 1 GHz. The purpose of this action is to develop rules and policies for licensing new NVNG MSS systems and existing NVNG licensees seeking to expand the service capability of their systems in order to (a) promote competition in the emerging NVNG MSS service markets and (b) spur the rapid delivery of new services to the public at reasonable prices. NVNG MSS systems provide near real-time data services worldwide and are global systems. In order to ensure the rapid and successful implementation of new NVNG MSS systems, the Commission has worked closely with the National Telecommunications and Information Administration ("NTIA") to develop innovative technical service rules that permit new NVNG MSS systems to time-share the licensed spectrum with existing United States government systems that will be operating in the same downlink spectrum. The Report and Order adopts rules and policies that promote efficiency in licensing and use of the electromagnetic spectrum. In addition, we expect that the licensing framework we have set out for NVNG MSS systems will aid in the development of competitive and innovative satellite systems.

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<sup>206</sup> See 5 U.S.C. § 603. The RFA, see 5 U.S.C. § 601 et seq., has been amended by the Contract with America Advancement Act of 1996, Public L. No. 104-121, 110 Stat. 847 (1996) (CWAAA). Title II of the CWAAA is The Small Business Regulatory Enforcement Fairness Act of 1996.

<sup>207</sup> Amendment of Part 25 of the Commission's Rules to Establish Rules and Policies Pertaining to the Second Processing Round of the Non-Voice, Non-Geostationary Mobile Satellite Service, Notice of Proposed Rulemaking, IB Docket No. 96-220, FCC 96-426 (released October 29, 1996).

<sup>208</sup> See 5 U.S.C. § 604.



## **II. Summary of Significant Issues Raised by Public Comments in Response to the Initial Regulatory Flexibility Analysis:**

No comments were received specifically in response to the IRFA. However, in order to minimize the entry barriers for new Little LEO systems seeking to provide NVNG MSS systems, the Commission staff spent months working with NTIA and the applicants to fashion a spectrum licensing plan that was proposed in the Notice. Before release of the Report and Order, we, again, worked closely with second round applicants and encouraged them to develop a mutually acceptable spectrum licensing plan. All of the second processing round applicants were able to reach agreement regarding a spectrum sharing plan and that plan has been adopted in the Report and Order. The spectrum sharing plan accommodates the system designs of all second round applicants, including existing NVNG MSS licensees. Therefore, we will not adopt our new entrant eligibility requirements and will apply our relaxed financial standard, rather than the strict financial standard proposed in the Notice. In addition, because all second round applicants can be accommodated in the available spectrum, the spectrum sharing plan we adopt avoids mutual exclusivity. Consequently, it will be unnecessary for the Commission to employ an auction to choose among mutually exclusive applicants. Finally, the Report and Order adopts eligibility rules for the use of future MSS spectrum and for receiving a second processing round authorization. By licensing all second round NVNG MSS applicants, we enable small entities and start-up companies the opportunity to compete in the capital intensive satellite industry.

## **III. Description and Estimate of the Number of Small Entities to Which Rules Will Apply:**

The Commission has not developed a definition of small entities applicable to satellite service licensees. Therefore, the applicable definition of small entity is the definition under the Small Business Administration rules applicable to Communications Services "Not Elsewhere Classified." This definition provides that a small entity is one with \$11 million or less in annual receipts.<sup>209</sup>

Of the five applicants in the second processing round, two are small entities: Volunteers in Technical Assistance, Inc. and LEO One USA Corporation. The remaining three second round applicants, Orbital Communications Corporation, Final Analysis Communications, Inc. and E-Sat, are not small entities because they each have revenues in excess of \$11 million annually or have parent companies or investors that have revenues in excess of \$11 million annually.

The service rules adopted in the Report and Order will not apply to other small entities currently providing NVNG MSS types of services. The services rules apply only to second

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<sup>209</sup> 13 CFR § 121.201, Standard Industrial Classification (SIC) Code 4899.

round NVNG MSS licensees that time-share spectrum in the 400.15-401 MHz and 137-138 MHz frequency bands with existing United States government satellite systems.

#### **IV. Description of Projected Reporting, Recordkeeping and Other Compliance Requirements:**

The rules adopted in the Report and Order require that all second processing round applicants file amendments to their pending applications to conform to the rules and policies adopted in the Report and Order. Such amendments are required in order to provide the Commission with updated technical and financial information about each applicant so that the Commission can determine whether or not an applicant is technically and financially qualified to receive a license to operate in the applied for spectrum.

In this Report and Order, we also adopt certain compliance requirements for second round NVNG MSS licensees that time-share spectrum in the 400.15-401 MHz and 137-138 MHz frequency bands with United States government satellite systems. The Commission may terminate the operations of NVNG MSS licensees determined to be interfering with the operations of United States government satellite systems. NVNG MSS licensees will also be required to comply with technical operational parameters relating to elevation angle, system demonstration requirements and satellite fail-safe procedures.

#### **V. Steps Taken to Minimize Significant Economic Burden on Small Entities, and Significant Alternatives Considered:**

The Commission proposed in the Notice applying a strict financial standard to second round NVNG MSS applicants. In order to minimize any barriers for entry into this new satellite market for small entities, Commission staff spent months encouraging and working with all of the NVNG MSS second round applicants to develop a spectrum sharing plan that could accommodate all second round applicants. As discussed in the Report and Order, all second round applicants can be accommodated under the spectrum licensing plan that we adopt. Therefore, we will apply the same relaxed financial standard to second processing round applicants that we applied to first processing round licenses. By developing a spectrum sharing plan that accommodates all second round applicants, we enable small entities and start-up companies the opportunity to compete in the capital intensive satellite industry.

#### **VI. Report to Congress**

The Commission shall send a copy of this FRFA, along with the Report and Order, in a report to Congress pursuant to the Small Business Regulatory Enforcement Fairness Act of 1996, 5 U.S.C. § 801(a)(1)(A). A copy of this FRFA will also be published in the Federal Register.